

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	"20040180999".pn.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 09:53
S2	9	("3047608" "3205250" "3281381" "4206103" "4290976" "6362260").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 09:16
S3	71	STEVENSON-DONALD\$.in. or NGUYEN-DUONG\$.in. or HARR-MARK\$.in. or JAKUPCA-MICHAEL\$.in.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 09:18
S4	11	DOVER CHEMICAL CORPORATION.as.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:41
S5	530	524/115.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:03
S6	11	("3047608" "3205250" "3281381" "4206103" "4290976" "4739000").PN. OR ("6362260").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:22
S7	3	S6 not S2	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:23
S8	52	("2564646" "3281381" "3558537" "3755200" "3928267" "3931364" "3943081" "3998782" "4116926" "4125501" "4134868" "4159261" "4159973" "4174297" "4206103" "4244848" "4282141" "4310429" "4333868" "4340514" "4346025" "4402858" "4601839" "4614756" "4661544" "4751118" "4782170" "5120783" "5283273" "5364895" "5374377" "5414030" "5519076" "5519077" "5532401" "5534566" "5714095" "5814691" "5880189" "5889095" "5969015" "6013703" "6022946" "6046263" "6103796" "6136900" "6180700" "6362260" "H000506").PN. OR ("6824711").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:38
S9	48	S8 not S6 not S2	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:39
S10	7	S4 and phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 12:41
S11	6	S10 not S2	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 13:50
S12	12	S3 and phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 13:50
S13	7	S12 not S11 not S10 not S2	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:03
S14	207	S5 and phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:03
S15	1	S5 and (phosphite near4 \$4cumyl)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:04

EAST Search History

S16	31	S5 and (phosphite near4 \$3isodecyl)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:04
S17	0	(558/70.ccls. or 558/70.ccls.) and (phosphite with \$5cumyl)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:05
S18	51	(558/70.ccls. or 558/70.ccls.) and (phosphite)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:16
S19	45	S18 and (aryl or phenyl or aromatic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:05
S20	9	(558/70.ccls. or 558/70.ccls.) and phosphite.ti.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:17
S21	5	(558/70.ccls. or 558/70.ccls.) and phosphite.ab.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:17
S22	10	S21 or S20	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:20
S23	236	((55cumyl near2 phenyl) or \$5cumylphenyl) with phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:23
S24	86	S23 and (PVC or polyvinyl chloride)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:54
S25	6	((55cumyl near2 phenyl) or \$5cumylphenyl) with phosphite	EPO; JPO; DERWENT	ADJ	ON	2006/06/26 14:51
S26	128	S23 and (propoxy or ethoxy)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:47
S27	0	(\$5cumylphenoxyethyl or \$5cumylphenoxypropyl or (\$5cumylphenoxy ethyl) or (\$5cumylphenoxy propyl)) with phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:50
S28	0	(\$5cumylphenoxyethyl or \$5cumylphenoxypropyl or (\$5cumylphenoxy near2 ethyl) or (\$5cumylphenoxy near2 propyl)) with phosphite	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:52
S29	0	((55cumyl near2 phenoxy) or \$5cumylphenoxy) with phosphite	EPO; JPO; DERWENT	ADJ	ON	2006/06/26 14:51
S30	1	ethoxy near3 \$5cumylphenyl	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:52
S31	8	S24 and (phosphite.ab. or phosphite.ti.)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 14:54
S32	1	"20040183054".pn.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/06/26 15:21



STIC Search Report

EIC 1700

STIC Database Tracking Number: 193927

TO: Sandra Poulos
Location: REM10D18
Art Unit : 1714
June 27, 2006

Case Serial Number: 10/709578

From: Kathleen Fuller
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

I DID A BROAD SEARCH COVERING CLAIMS 1 AND 7 FINDING 132 STRUCTURES. I THEN SEARCHED FOR THE STRUCTURES OF CLAIM 4 , USING A RATHER BROAD VERSION OF THE 2 COMPOUNDS IN CLAIM 4. THERE WERE 20 ANSWERS BUT 18 OF THEM WERE POLYMERS AND NOT CORRECT. ONLY 2 ANSWERS WERE GOOD (THE COMPOUNDS OF CLAIM 4) AND THERE WAS ONLY ONE CA REFERENCE WHICH WAS TO THE APPLICANT.

I COMBINED THE 132 STRUCTURES WITH UTILITY AND THERE WERE 3 REFERENCES, ONE TO THE APPLICANT AND THE 2 OTHERS NOT USEFUL.

IF YOU HAVE ANY QUESTIONS PLEASE CALL ME.



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 1713

➤ Relevant prior art found, search results used as follows

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention

Comments:

193927

Fuller, Kathleen

From: SANDRA POULOS [sandra.poulos@uspto.gov]
Sent: Monday, June 26, 2006 10:12 AM
To: STIC-EIC1700
Subject: Database Search Request, Serial Number: 10/709,578

Requester:
SANDRA POULOS (P/1714)
Art Unit:
GROUP ART UNIT 1714
Employee Number:
81697
Office Location:
REM 10D18
Phone Number:
(571)272-6428
Mailbox Number:

Case serial number:
10/709,578
Class / Subclass(es):
524/115
Earliest Priority Filing Date:
5/14/04
Format preferred for results:
Paper
Search Topic Information:
Please search the chemical structures in Claims 1 and 7.
Special Instructions and Other Comments:

*Please copy Claims
from Edan. KF*

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:49:22 ON 27 JUN 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 JUN 2006 HIGHEST RN 889573-50-6

DICTIONARY FILE UPDATES: 26 JUN 2006 HIGHEST RN 889573-50-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> FILE HCAPLU

FILE 'HCAPLUS' ENTERED AT 10:49:25 ON 27 JUN 2006

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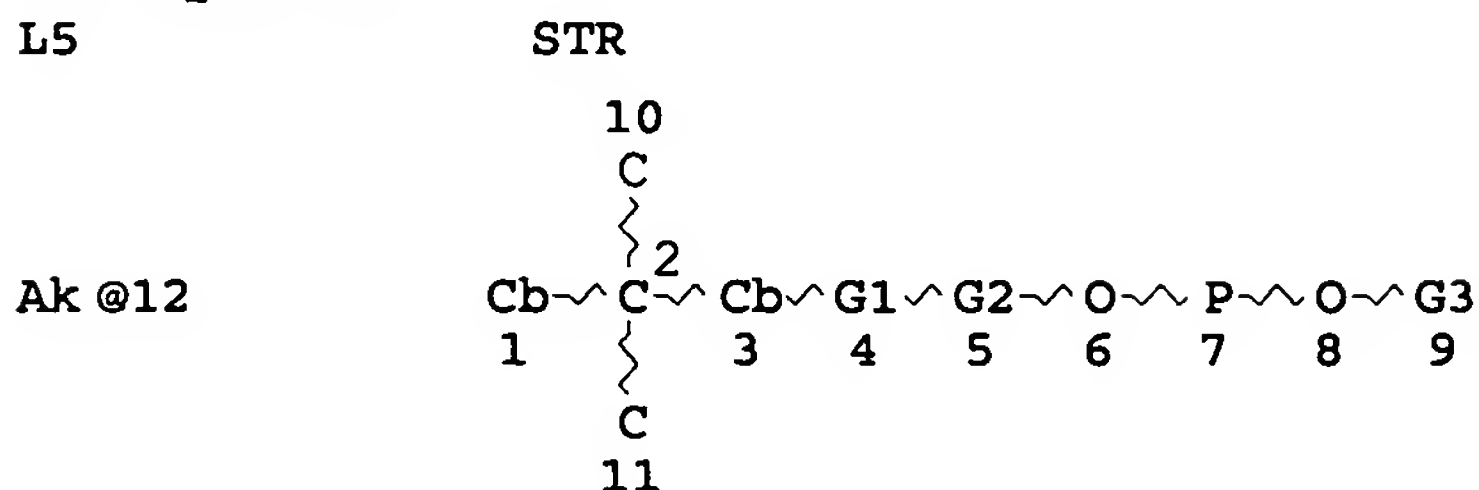
FILE COVERS 1907 - 27 Jun 2006 VOL 145 ISS 1

FILE LAST UPDATED: 26 Jun 2006 (20060626/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L18



REP G1=(0-1) O

REP G2=(0-4) C

VAR G3=12/ID

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M8 C AT 12

GRAPH ATTRIBUTES:

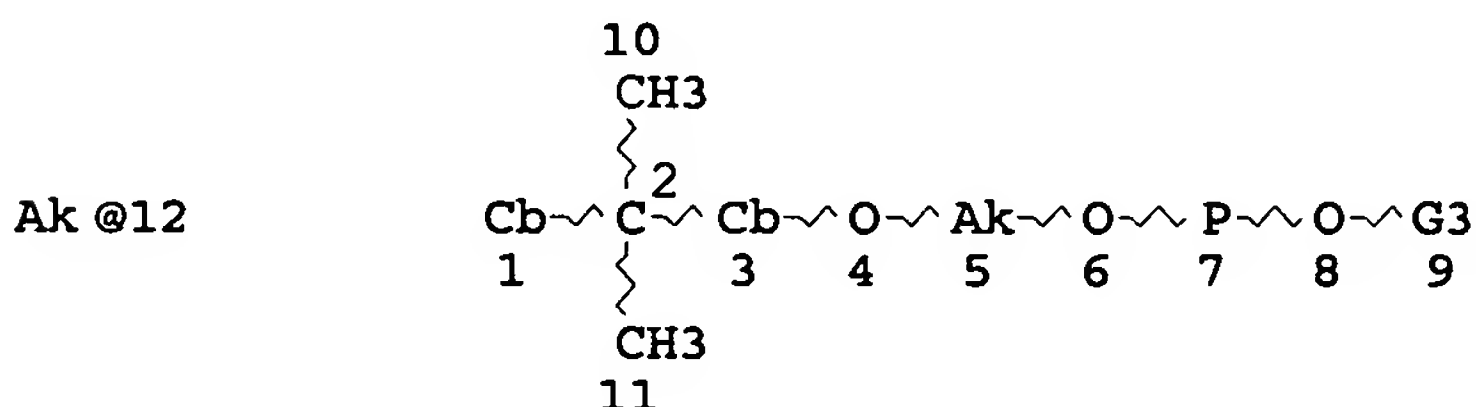
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NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L7 132 SEA FILE=REGISTRY SSS FUL L5

L11 STR



VAR G3=12/ID

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M8 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L14 20 SEA FILE=REGISTRY SUB=L7 SSS FUL L11

L15 18 SEA FILE=REGISTRY ABB=ON L14 AND PMS/CI

L16 2 SEA FILE=REGISTRY ABB=ON L14 NOT L15

L18 1 SEA FILE=HCAPLUS ABB=ON L16

=> D L18 IBIB ABS IND HITSTR

132 structures from
this query
covers claim 1 or claim 7

Subset search
for claim 4 compounds

20 structures - 18 are polymers
and not good
answers

Only 2 structures

1 CA reference

L18 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:759855 HCAPLUS

DOCUMENT NUMBER: 141:261515

TITLE: Reducing phenol emissions in polymers using phosphites

INVENTOR(S): Stevenson, Donald R.; Nguyen, Duong N.; Harr, Mark E.; Jakupca, Michael R.

PATENT ASSIGNEE(S): Dover Chemical Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 20 pp. *applicant*

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004180999	A1	20040916	US 2004-709578	20040514
WO 2005113665	A2	20051201	WO 2005-US15331	20050503

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-709578 A 20040514

OTHER SOURCE(S): MARPAT 141:261515

AB A process for reducing phenol emissions from a polymer resin comprises adding at least one specified phosphite additive (e.g., ethoxy-p-cumylphenyl diisodecyl phosphite) to the resin (e.g., PVC). These phosphites utilize p-cumyl phenol-based derivs. in order to provide a phenol free derivative of the above mentioned conventional phosphites.

IC ICM C08K005-49

INCL 524115000

CC 37-6 (Plastics Manufacture and Processing)

ST phenol emission redn polymer phosphite additive

IT 457898-48-5 756522-31-3 756522-33-5 756522-35-7

RL: MOA (Modifier or additive use); USES (Uses)

(reducing phenol emissions in polymers using phosphites)

IT 9002-86-2, Polyvinyl chloride

RL: POF (Polymer in formulation); USES (Uses)

(reducing phenol emissions in polymers using phosphites)

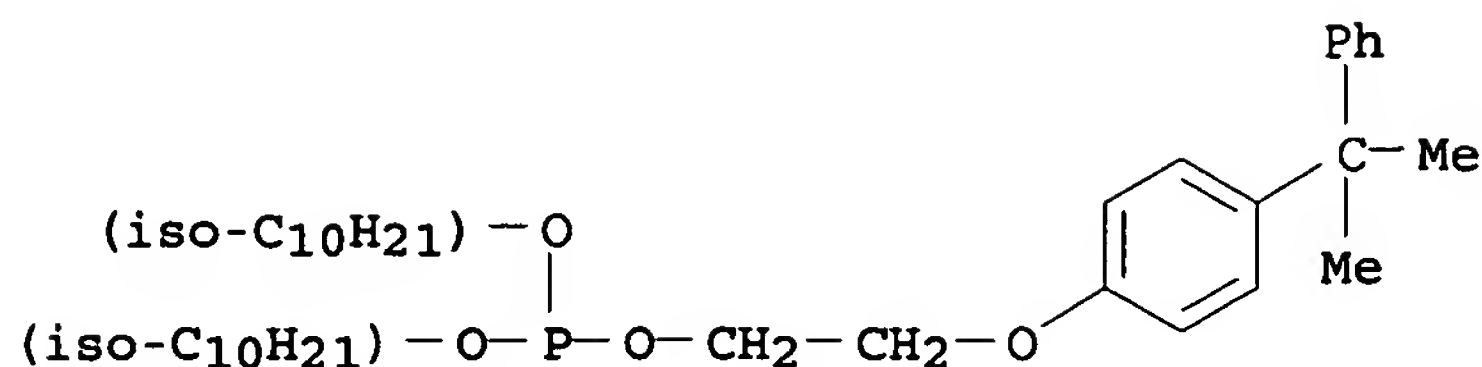
IT 756522-31-3 756522-33-5

RL: MOA (Modifier or additive use); USES (Uses)

(reducing phenol emissions in polymers using phosphites)

RN 756522-31-3 HCAPLUS

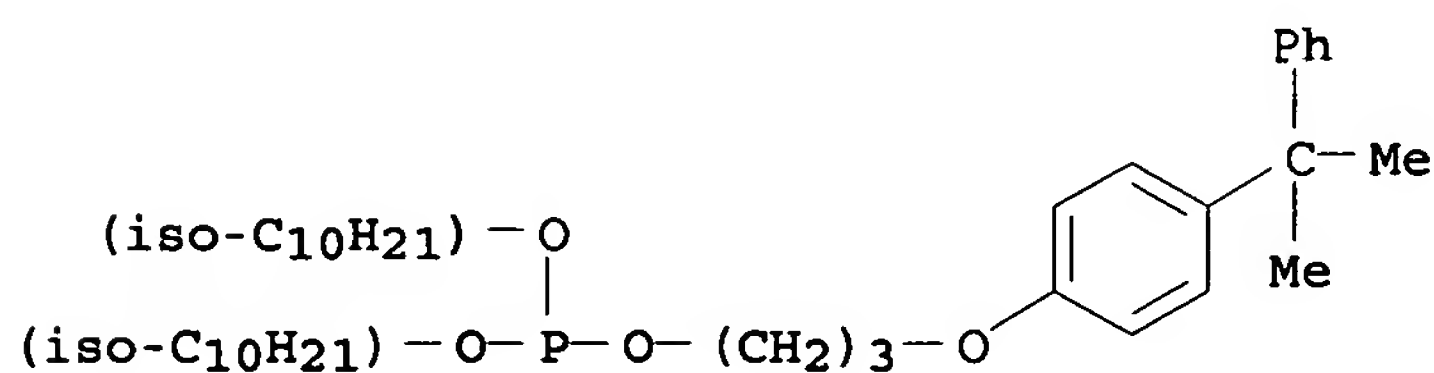
CN Phosphorous acid, diisodecyl 2-[4-(1-methyl-1-phenylethyl)phenoxy]ethyl ester (9CI) (CA INDEX NAME)



← Claim 4

RN 756522-33-5 HCAPLUS

CN Phosphorous acid, diisodecyl 3-[4-(1-methyl-1-phenylethyl)phenoxy]propyl ester (9CI) (CA INDEX NAME)



← Claim 4

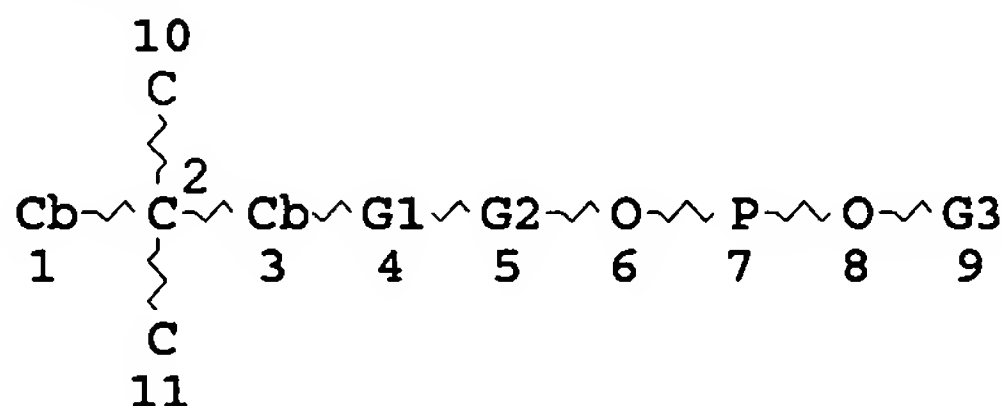
no other references to these compounds

=> => D QUE

L5

STR

Ak @12



Broad structure search
Combined with
utility

REP G1=(0-1) O

REP G2=(0-4) C

VAR G3=12/ID

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M8 C AT 12

GRAPH ATTRIBUTES:

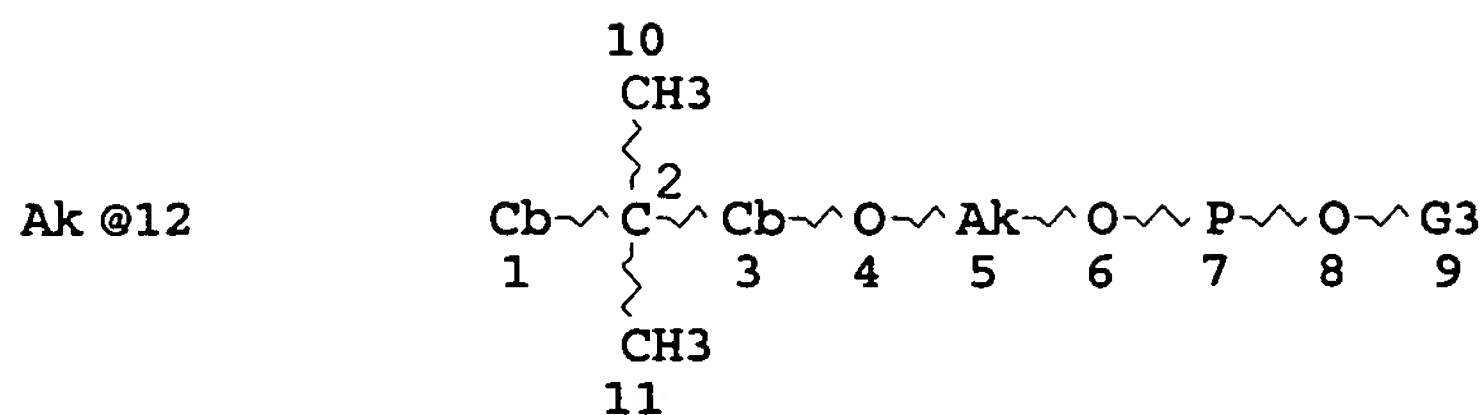
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L7 132 SEA FILE=REGISTRY SSS FUL L5

L11 STR



VAR G3=12/ID

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M8 C AT 12

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L14 20 SEA FILE=REGISTRY SUB=L7 SSS FUL L11

L15 18 SEA FILE=REGISTRY ABB=ON L14 AND PMS/CI

L19 16 SEA FILE=HCAPLUS ABB=ON L15

L24 9192 SEA FILE=HCAPLUS ABB=ON PHENOL? (3A) (EMISS? OR REDUC? OR FREE)

L25 0 SEA FILE=HCAPLUS ABB=ON L19 AND L24

L28 323 SEA FILE=HCAPLUS ABB=ON L7

L29 3 SEA FILE=HCAPLUS ABB=ON L28 AND L24

L34 3 SEA FILE=HCAPLUS ABB=ON L25 OR L29

3 CA references

=> D L34 IBIB ABS IND HITSTR 1-3

L34 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:759855 HCAPLUS

DOCUMENT NUMBER: 141:261515

TITLE: Reducing phenol emissions

in polymers using phosphites

INVENTOR(S): Stevenson, Donald R.; Nguyen, Duong N.; Harr, Mark E.; Jakupca, Michael R.

PATENT ASSIGNEE(S): Dover Chemical Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 20 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004180999	A1	20040916	US 2004-709578	20040514
WO 2005113665	A2	20051201	WO 2005-US15331	20050503

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,

applicant

SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-709578 A 20040514
 OTHER SOURCE(S): MARPAT 141:261515

AB A process for reducing phenol emissions from a polymer resin comprises adding at least one specified phosphite additive (e.g., ethoxy-p-cumylphenyl diisodecyl phosphite) to the resin (e.g., PVC). These phosphites utilize p-cumyl phenol-based derivs. in order to provide a phenol free derivative of the above mentioned conventional phosphites.

IC ICM C08K005-49

INCL 524115000

CC 37-6 (Plastics Manufacture and Processing)

ST phenol emission redn polymer phosphite additive

IT 457898-48-5 756522-31-3 756522-33-5
 756522-35-7

RL: MOA (Modifier or additive use); USES (Uses)
 (reducing phenol emissions in polymers using phosphites)

IT 9002-86-2, Polyvinyl chloride

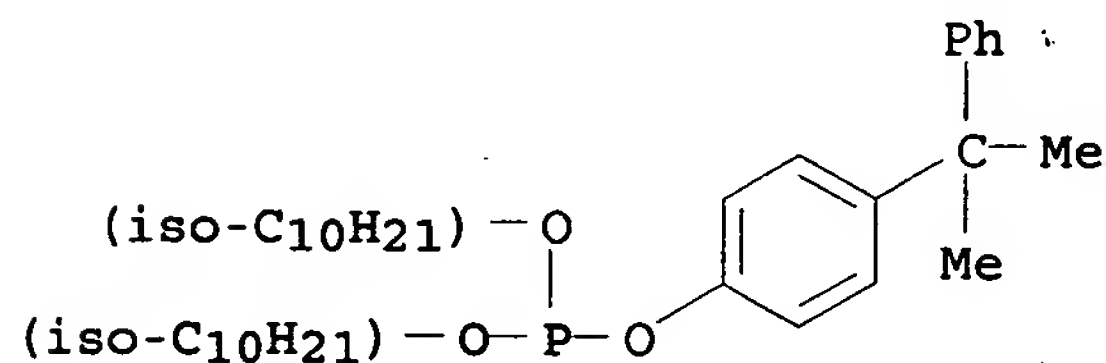
RL: POF (Polymer in formulation); USES (Uses)
 (reducing phenol emissions in polymers using phosphites)

IT 457898-48-5 756522-31-3 756522-33-5
 756522-35-7

RL: MOA (Modifier or additive use); USES (Uses)
 (reducing phenol emissions in polymers using phosphites)

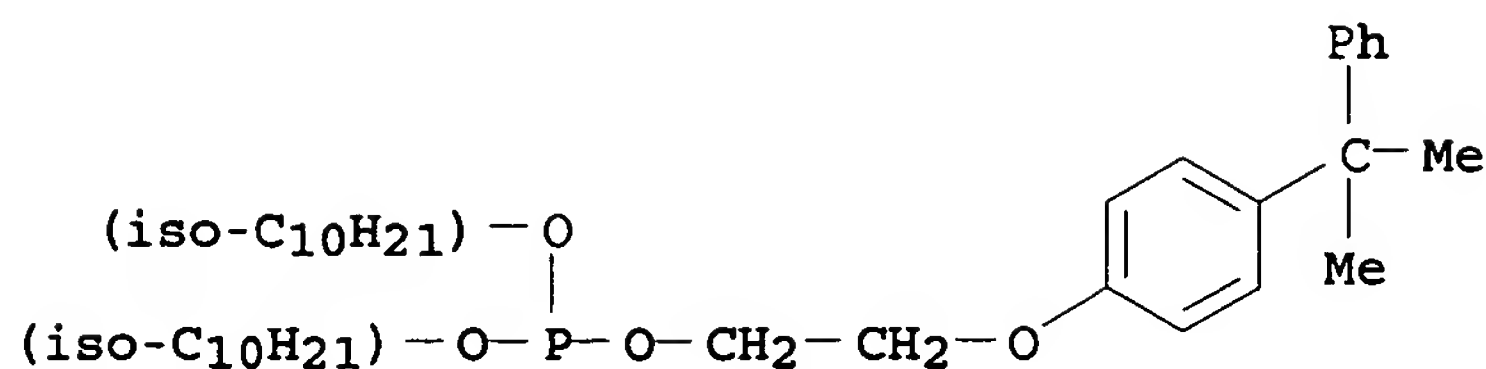
RN 457898-48-5 HCAPLUS

CN Phosphorous acid, diisodecyl 4-(1-methyl-1-phenylethyl)phenyl ester (9CI)
 (CA INDEX NAME)



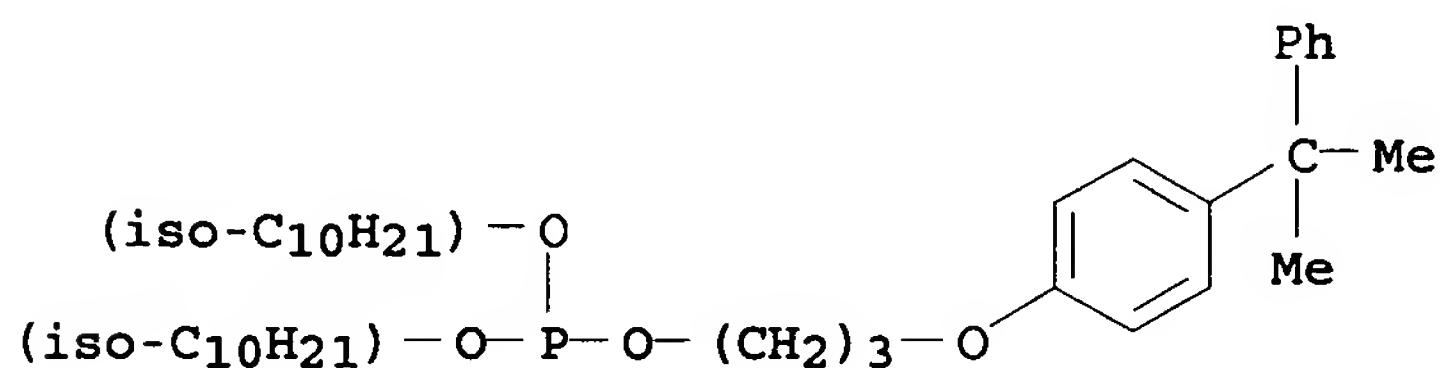
RN 756522-31-3 HCAPLUS

CN Phosphorous acid, diisodecyl 2-[4-(1-methyl-1-phenylethyl)phenoxy]ethyl ester (9CI) (CA INDEX NAME)



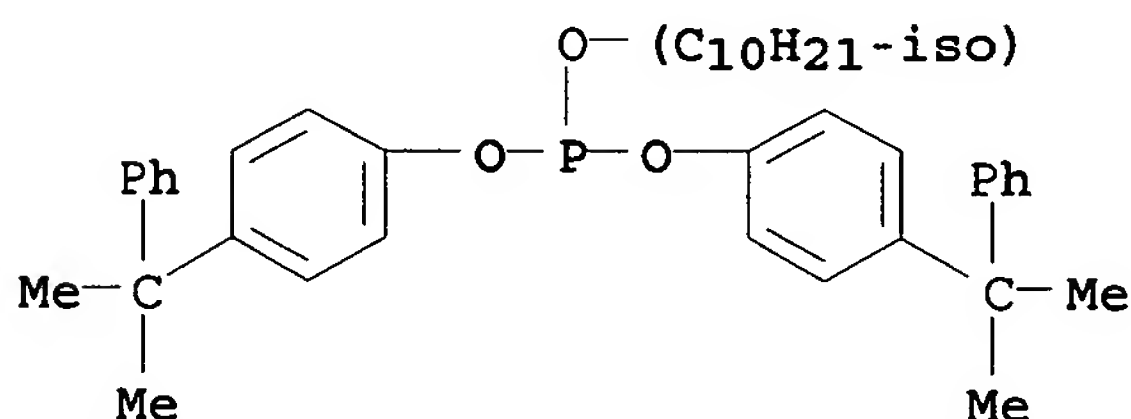
RN 756522-33-5 HCAPLUS

CN Phosphorous acid, diisodecyl 3-[4-(1-methyl-1-phenylethyl)phenoxy]propyl ester (9CI) (CA INDEX NAME)



RN 756522-35-7 HCAPLUS

CN Phosphorous acid, isodecyl bis[4-(1-methyl-1-phenylethyl)phenyl] ester (9CI) (CA INDEX NAME)



L34 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:658216 HCAPLUS

DOCUMENT NUMBER: 133:224001

TITLE: Halogen-free flame-retardant adhesives for manufacture of printed circuit boards

INVENTOR(S): Ito, Toshihiko; Tanaka, Masaru; Hirayama, Takao

PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000256633	A2	20000919	JP 1999-61516	19990309
PRIORITY APPLN. INFO.:			JP 1999-61516	19990309

AB The adhesives, showing good resistance to heat and electrolytic corrosion, comprise (A) copolymers prepared from nitrile-containing monomers, epoxy-containing

monomers, and other comonomers 70-90, (B) epoxy resins 7-20, and (C) hardeners or hardening catalysts 3-10 parts and contain N compds. (based on 100 parts of A-B-C total) (D) 20-40 parts, (E) P compds. 20-40 parts, and (F) crystal water. The copolymer A may comprise acrylonitrile 15-35, glycidyl (meth)acrylate 0.5-4, and other comonomers 61-84.5%. Thus, 533 parts 2:15:30:53 (%) glycidyl methacrylate-acrylonitrile-Bu acrylate-Et acrylate copolymer was blended with bisphenol A epoxy resin (Epikote 828) 15, cresol novolak epoxy resin (Epo Tohto YDCN 703) 5, a phenolic resin (Plyophen LF 2822) 8, Al₂O₃ (Higilite H 42STE) 85, biphenyl-type phosphoric acid ester (CR 747) 30, melamine resin (Melan 523) 10, a melamine-phenol resin 15, and an imidazol-type hardening accelerator (Curezol 2PZCN) 0.2 part to give a varnish, which was applied on a polyimide film, dried, and laminated with a Cu foil to give a specimen showing 180° peeling strength 1.2 KN/m, solder heat resistance 330°, and UL 94 fire resistance rating V0.

IC ICM C09J133-18

ICS C09J011-04; C09J011-06; C09J133-14; C09J161-34; C09J163-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST nitrile polymer blend nonhalogen fireproofed adhesive; epoxy resin adhesive phosphate blend fireproofed; melamine resin blend fireproofed adhesive; electrolytic corrosion heat resistant adhesive; printed circuit board nonhalogen adhesive

IT Phenolic resins, uses

Phenolic resins, uses

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(aminoplast-, fireproofing agents; halogen-free epoxy resin adhesives

containing N compds. and P compds. for printed circuit board manufacture)

IT Phenolic resins, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(epoxy, novolak, cresol-novolak; halogen-free epoxy resin adhesives

containing N compds. and P compds. for printed circuit board manufacture)

IT Aminoplasts

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agents; halogen-free epoxy resin adhesives containing N

compds. and P compds. for printed circuit board manufacture)

IT Fireproofing agents

Printed circuit boards

Semiconductor device fabrication

(halogen-free epoxy resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

IT Adhesives

(heat- and fire-resistant; halogen-free epoxy resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

IT Aminoplasts

Aminoplasts

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(phenolic, fireproofing agents; halogen-free epoxy

resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

IT Epoxy resins, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(phenolic, novolak, cresol-novolak; halogen-free epoxy resin adhesives

containing N compds. and P compds. for printed circuit board manufacture)

IT 9003-08-1, Melan 523 23996-12-5, Curezol 2PZCN 93981-32-9, CR 747

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agents; halogen-free epoxy resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

IT 25068-38-6P, Epikote 828 58152-79-7P, Acrylonitrile-butyl acrylate-ethyl acrylate-glycidyl methacrylate copolymer 101706-82-5P, Epo Tohto YDCN 703 206566-37-2P, Plyophen LF 2822 292145-57-4P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(halogen-free epoxy resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

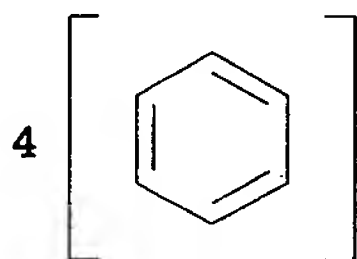
IT 93981-32-9, CR 747

RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

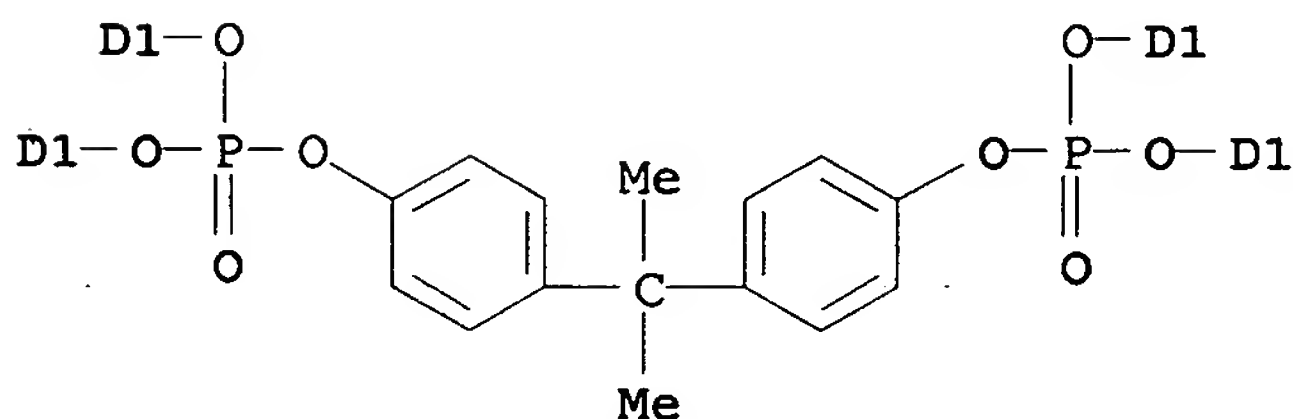
(fireproofing agents; halogen-free epoxy resin adhesives containing N compds. and P compds. for printed circuit board manufacture)

RN 93981-32-9 HCAPLUS

CN Phosphoric acid, (1-methylethylidene)di-4,1-phenylene tetrakis(methylphenyl) ester (9CI) (CA INDEX NAME)



4 (D1-Me)



L34 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:382520 HCAPLUS

DOCUMENT NUMBER: 125:35058

TITLE: Halo-free fire-resistant thermoplastic resin compositions

INVENTOR(S): Matsubara, Kazuhiro; Katsumata, Tsutomu

PATENT ASSIGNEE(S): Asahi Chemical Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

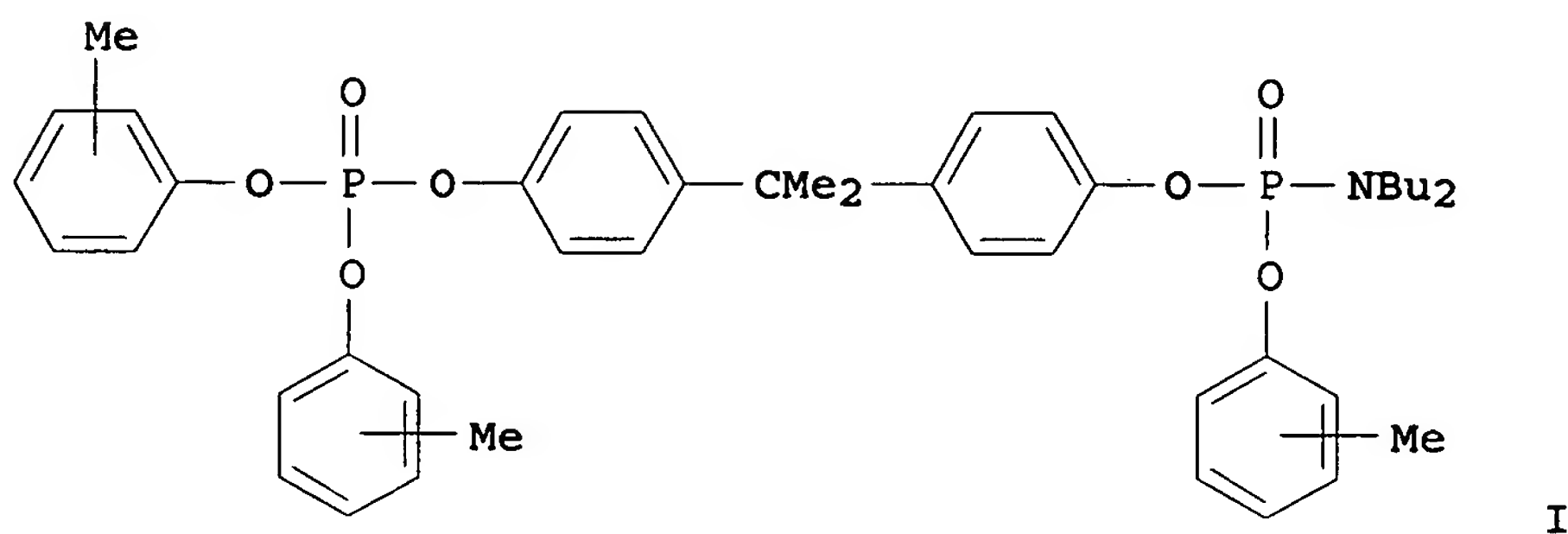
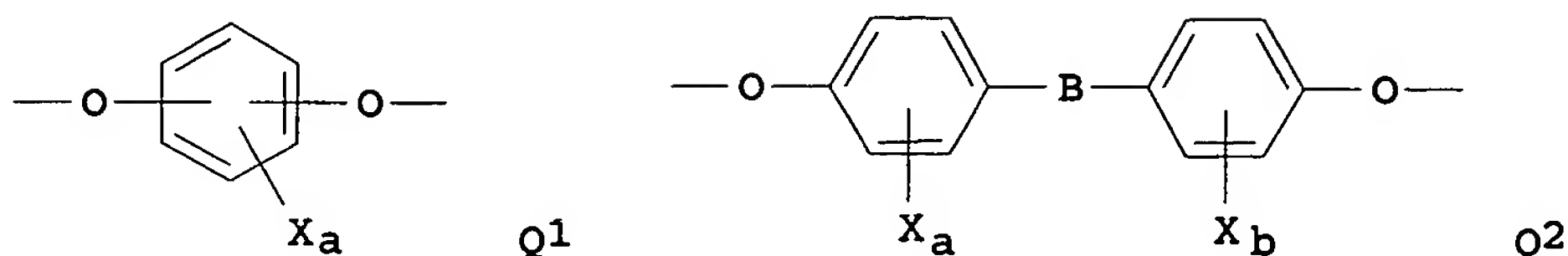
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08059888	A2	19960305	JP 1994-192587	19940816
PRIORITY APPLN. INFO.:			JP 1994-192587	19940816
OTHER SOURCE(S):			MARPAT 125:35058	
GI				



- AB The compns. comprise synthetic resins and $R_1R_2P(O)[AP(O)R_3]_nR_4$ [$n = 1-100$; $R_1-4 = NR_5R_6$, OAr; $R_5, R_6 = H$, C1-10 alkyl, alkenyl, cycloalkyl, $PhCH_2$, Ph, C1-3-alkyl-substituted aryl; $A = Q_1, Q_2$; $X = \text{halo}$; $a, b = 0-4$; $B = SO_2$, C1-4 alkylidene, alkylene] containing $\geq 3\%$ P and $\geq 0.1\%$ N. Thus, poly(2,6-dimethyl-1,4-phenylene ether) 50, high-impact polystyrene 50, poly(tetrafluoroethylene) 0.1, and a phosphate ester (I) 20 parts were melt-kneaded, pelletized, and injection-molded to give a test piece showing good fire resistance.
- IC ICM C08K005-5399
ICS C08L101-00
- CC 37-6 (Plastics Manufacture and Processing)
- ST fire resistance thermoplastic halo free; amide phosphate fire retardant thermoplastic blend
- IT Fireproofing agents
(halo-free fire-resistant thermoplastic resin compns. containing phosphate amide fire retardants)
- IT Fluoropolymers
Plastics
Polycarbonates, properties
Polyoxyarylenes
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(halo-free fire-resistant thermoplastic resin compns. containing phosphate amide fire retardants)
- IT 177190-05-5P 177996-35-9P 178066-89-2P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(fire retardant; halo-free fire-resistant thermoplastic resin compns.)

containing phosphate amide fire retardants)

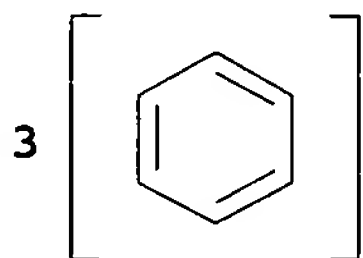
IT 9002-84-0, Tetrafluoroethylene homopolymer 24938-67-8,
Poly(2,6-dimethyl-1,4-phenylene ether) 25134-01-4, 2,6-Xylenol
homopolymer
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(halo-free fire-resistant thermoplastic resin compns. containing phosphate
amide fire retardants)

IT 80-05-7, reactions 100-61-8, reactions 108-46-3, Resorcinol, reactions
108-95-2, Phenol, reactions 111-92-2, Dibutylamine 122-39-4,
Diphenylamine, reactions 1319-77-3, Cresol 10025-87-3, Phosphorus
oxychloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(halo-free fire-resistant thermoplastic resin compns. containing
phosphate amide fire retardants)

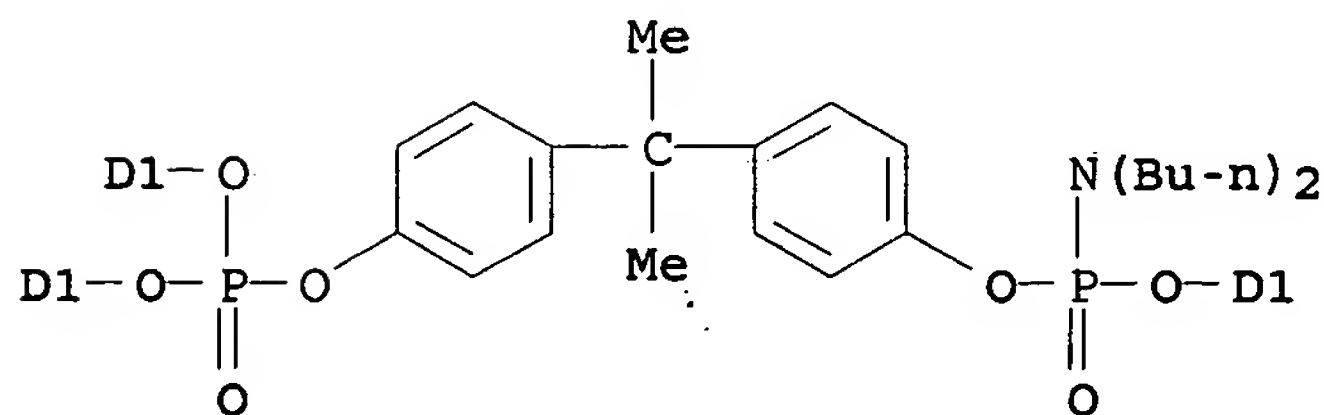
IT 100-42-5D, polymers
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(high-impact; halo-free fire-resistant thermoplastic resin compns.
containing phosphate amide fire retardants)

IT 178066-89-2P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
(Preparation); USES (Uses)
(fire retardant; halo-free fire-resistant thermoplastic resin compns.
containing phosphate amide fire retardants)

RN 178066-89-2 HCAPLUS
CN Phosphoric acid, 4-[1-[4-[[[(dibutylamino)(methylphenoxy)phosphinyl]oxy]phe
nyl]-1-methylethyl]phenyl bis(methylphenyl) ester (9CI) (CA INDEX NAME)



3 (D1—Me)



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